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SOME DETERMINANTS IN THE PLANNING OF LIBRARY AND DOCUMENTATION SERVICES IN AN INDUSTRIAL ENTERPRISE.

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Some of the determinants involved in the planning of library and documentation services in an industrial enterprise are discussed. The services planned and provided by the Hindustan Machine Tools Ltd, Hyderabad, on the basis of the determinants- is given as a case study.

0 INTRODUCTION

01 Need for Planning

Planning is a pre-requisite for the proper functioning, of any system. Library and Documentation Systems are no exceptions to this axiom, since non-planning will result in poorly organised and ill-equipped systems. Even a planned system needs to be evaluated periodically, and suitable modifications have to be made in the plan so that the system achieves its objectives by the services it offers. It is a healthy sign that the management, both in private and public sectors, have realised the usefulness of documentation services in the development of the industries, and thereby in the economic development of the nation. This realisation has provided to the documentalists, the much needed opportunity and challenge to prove their mettle, by organising

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and rendering good documentation service. Therefore, it is more important than before for the library and documentation systems to plan their activities on sound principles.

02 Scope of the Paper

In this paper, an attempt is made to study some of the determinants or parameters involved in planning of library and documentation systems, A case study of the documentation services rendered by Hindustan Machine Tools Limited, Hyderabad is also given.

1 DETERMINANTS IN PLANNING

Some of the determinants or factors to be considered in the planning of library and documentation services in an industrial enterprise are:

- a) Type of users and their informational requirements
- b) Subject coverage
- c) Services to be rendered
- d) Staff and Financial assistance necessary

2 TYPE OF USERS AND THEIR INFORMATIONAL REQUIREMENTS

The planning of library and documentation services in an industrial enterprise should aim primarily in rendering service to its users, and subsequently to personnel in other organisations with similar interests. In an industrial enterprise,

the users may belong to one of the following types.

- 1 Top management ;
- 2 Engineers ; and
- 3 Technicians and other workers.

21 Top Management

The top management in an industrial enterprise would consist of the Managing director. General Manager, Managers or Executives of different divisions. They are concerned with overall management, policy making, planning, organisation and coordination of the work of the different units etc. As time is a precious commodity for them, they are unable to visit the libraries for their informational requirements. Therefore, the library or documentation centre should feed them with current scientific, technical, commercial and techno-economic information from management point of view, and thereby promote managerial competence — especially in the decision making process.

22 Engineering Personnel

The engineering personnel in an Industrial enterprise are the main users of the library. The engineers may be production engineers, design engineers, or inspection engineers. The production engineers visit the library only when they have some specific problems to be solved. Some of the problems are;

- 1 To find out the causes of a bearing failure;

2 Problems relating to repair and maintenance; and

3 Problems relating to assembly of machines, etc.

On the other hand, the design engineers are the most frequent users of the library among the engineering personnel. This is due to the fact that they will have to conceive, design, and give detailed instructions in regard to the manufacture of a product, assembly of a product, or the testing of a product as per the specifications given by the customer (5). While the engineering personnel, other than design engineers, can carry on their functions to some extent without the help of the library, the library and documentation services are essential for the design engineers.

23 Technicians and Workers

Technicians and workers form the major core of personnel in an industrial enterprise. These include the bench fitters, turners, boring operators, draughtsmen, etc. As they may not be regular users of the library, certain services have to be rendered to them in order to solve their technical problems and thereby increase their efficiency in work, apart from educating them in the general sense of the term. Services such as technical digests, extracts, or whole articles on topics in various "trades", are to be given.

24 Industrial Users' Habits

In an Aslib survey conducted in 1964, Slater

had observed that industrial library users were not particularly frequent library users. Further, they seemed to consult the library for practical problems concerning equipment, sources of supply, etc., and their demands for specified documents was high (45%) as well for information (30%). It was also observed that librarian's assistance was asked for more than any other employer/library group (8). It is desirable that the user habits be taken note of, in the planning of documentation services in an industrial enterprise.

3 SUBJECT COVERAGE

Recognition of users information needs, identification of the sources, and the obtaining or acquisition of relevant documents are vital factors which should be considered before the planning of documentation services in an organisation are thought of. In an industrial enterprise, the subject area to be covered therefore, depends on

- 1 The objective of an industrial enterprise; •
- 2 The program of activities for the realisation of the objectives; and
- 3 Other factors — internal and external — in regard to the users' needs.

In this context, it may not be out of place to mention that many an industrial enterprise conducts periodically training programs for their employees with the objective of increasing their

efficiency, thereby increasing the productivity of the organisation concerned. As it forms part of the regular activity of industrial enterprises, it is desirable that the documentation centre plans its services in such a manner so as to make the training programs a success.

4 SERVICES

One of the primary aims of documentation service is "putting the knowledge to work". In order to put the knowledge to work, not only one has to understand the characteristics of knowledge, but also to understand how knowledge is absorbed and assimilated, the "motivations it induces (7) and how it must be channelised for most efficient (and effective) utilization. Thus, utilisation of information is basically a communication process (6). Therefore 'dissemination' of information is an important determinant in the planning of documentation service and needs much attention. Towards this end, planning should be undertaken to see that whatever relevant information is presented, it should be in a digestible logical sequence and be easily assimilated (2).

Therefore, it is imperative that in the planning of library and documentation services, the informational requirements of users are taken note of. The different services that a documentation centre of an industrial enterprise can give to its users are briefly discussed in Paper G- submitted to this Seminar. In addition, planning should envisage the need for

cooperation and coordination among the industrial libraries in the region, in regard to acquisition and lending of documents among themselves. This is due to the following factors;

- a) Paucity of funds;
- b) Phenomenon of seepage of documents (3);
- c) Phenomenon of scatter of documents, etc.

In this connection, it is worth recalling Penna's words "In developing countries, the planner must from the start have his eye *on* 1980's when greater coordination between all types of libraries can be confidently expected and technical processing will be geared more and more to international system" (4).

Further, the need for the planning of reprographic and translation services in an industrial enterprise need not be overemphasised, since the industrial library user — especially the top management and engineering personnel Invariably would request for a copy of the document.

5 PROFESSIONAL AND FINANCIAL ASSISTANCE

51 Staff

The process of planning involves two phases. The first phase includes as already mentioned, the identification of the users needs, and the designing of appropriate services. In the second phase, execution of the services is to be undertaken "rapidly and rationally". The execution of any plan, will not take place if suitable strategy — to ensure

effective execution and optimum use of the available human and material resources — is not evolved. Therefore, it is important to evolve certain criteria for the planning of the staff requirements, which are generally related to the range of services to be provided. It is difficult to evolve norms or standards for staff required to render documentation services. However, "Standards for Library Service" published by UNESCO (9), can be adopted to the individual situations with certain modifications.

In an industrial enterprise the demands are often ancillary to the user's current work, and considering other factors mentioned in Sec 2, rendering documentation services needs sufficient staff, with a rich background of technical knowledge combined with professional knowledge, and a "fully professional approach". Obviously the provision of staff and other material resources require considerable financial assistance.

52 Finance/Budget

It is difficult to evolve patterns to identify expenditure, analyse cost and determine sources and ways of financing it, especially in relation to Documentation Services. In fact, it was observed at the Ibero-American Seminar (organised by Unesco, on planning of Library and Documentation Services in Madrid from Feb 5 to 2 March 1968) that one of the points to be taken into account for the strategy

of planning of Library and Documentation Service is "carrying out statistical studies and economic analyses to discover ... expenditure; establish indices which will enable a comparison of these expenditures with those on other similar services or with, those on activities which are supported by these services". Therefore maintenance of Library statistics will Provide useful planning data (10).

In the absence of data on standard costs, one way of knowing trend of expenditure on Documentation Services would be to work out what is actually-being spent on different services already provided. The analysis of the total expenditure incurred on various services- provides guidelines for more effective use of available financial resources. For example, the "Appendix" in Sec 91 showing the work flow chart and cost analysis, gives an idea of the expenditure involved in preparing and producing the current awareness list in an Industrial Enterprise, Similar analyses can be made for the other documentation services. On the basis of these cost-figures the total expenditure for the services can be calculated. This in turn would aid the librarian or the documentalist in the preparation of the budget for the Library and Documentation Centre of the industrial enterprise.

6 IMPLIMENTATION AND EVALUATION

"Planning" is a continuous process requiring constant appraisal. It is not an end in itself' but a means to agreed aims and objectives. Further,

since agreed aims and objectives change from time to time, and the means to achieve them also change owing to the improvements in 'tools and techniques', the plan must be evaluated and revised from time to time. Ultimately, planning should culminate in the development of the organisation.

Apart from using techniques such as 'survey', 'Interviews' for evaluating the services, management techniques such as System Analysis, Gannt Chart can be employed to evaluate the services.

A management technique which can be applied with success in the evaluation of a documentation service is "Cost Benefit - Analysis", or a systematic comparison between the total expenditure on the service and the benefits which result from it. This can be used to measure a service as a whole or specific aspects of it (1). For example, the cost of production of the Current Awareness List would be measured against the time saved by Managers and Engineers reading them,

7 CASE STUDY

In this section, the documentation services instituted at HMT, Hyderabad are described. In the planning and the institution of the services, the determinants mentioned earlier were given due weightage.

70 Production Programme

The production program of the factory includes

the production of highly sophisticated machines — Special Purpose Machines, Transferlines , Multi-spindle Automaticsj Horizontal Poring Machines, Presses, and Press Brakes. Since the factory is not only undertaking "building of the highly complicated and sophisticated machine tools, "but also diversifying its production program, the nature of technical information required is extremely sophisticated, varied and voluminous.

In view of this production program, and the different types of users (about 400 active users out of about 2500 employees), the following library and documentation services were planned and are being rendered in our organisation.

71 Circulation of Current Issues of Periodicals

As soon as the periodicals are received in library, they are immediately circulated to different key personnel in the organisation. The routing of periodicals to the personnel is dependent on the occurrence of articles of their interest. In the routing, priority is given to top management personnel.

72 Current Awareness list

A classified list, using a depth classification scheme, of about 150 - 200 entries of important articles appearing in the 130 current periodicals received in the library, is mimeographed and issued as a monthly bulletin entitled "Current

technical information service". The list consists of 3 parts — a classified part consisting of the main entries, an alphabetical part consisting of the subject index, and the list of periodicals covered in the Current Awareness list. The subject coverage of this list is essentially Machine Tool Engineering and allied subjects. A time lag of about six weeks from the date of receipt of periodicals in the library has been observed. The sequence of operations, and the cost involved in producing the Current Awareness List is given in Appendix 1. A specimen copy of a page of the Current Awareness List is given as Appendix 2. The Current Awareness Lists thus prepared, are used for retrospective searches.

73 Technical Notes and Digest Service

731 Digest Service

Digests or summaries are prepared on the basis of information culled out from different documents. The digests prepared are essentially of two kinds — namely, Management digest and Technical digest, While the former is meant for the Management Personnel, the latter is for the Engineering and other Personnel. Titles of digests that have been prepared in our organisation are given below:

For Management Personnel

- a) Techniques of supervision;
- b) Value analysis;
- c) Modern trends in management, etc.

For Design Engineers

- a) Surface finish requirements in design;
- b) Preferred numbers;
- c) Compilations on design ideas, etc.

For Technicians and Workers

- a) Work simplification;
- b) Causes and cures for tool breakages;
- c) " How to develop safety habits, etc.

732 Practical ideas

Proven 'practical ideas' which save the time and efforts of Design and Production Engineers are collected from various sources, and are reported in the "Practical Ideas" series.

733 Cost Reduction Clinic

Actual "Case Studies" from different manufacturing concerns are scanned from technical periodicals and useful ones are disseminated in this service.

734 News Briefings

Important "news" items affecting our business and industry are sought from different sources and summarised, and presented with appropriate headings. Care is taken to include only very useful and interesting news items. The news briefings usually not exceeding one page, are circulated,

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74 Press Clipping Service

Scanning, selection and routing of news paper cuttings to the top management from six national daily newspapers is done. The fields covered are — Commerce, Economics, Industry, Personnel Management, Industrial Relations, Financial Management, Government Policies affecting the industry etc.

75 Bibliographical Service

To supplement the Training programs and to stimulate the interest in useful topics concerning our organisational needs, some bibliographies of the books, articles, and other documents available in the library are prepared from time to time. Besides, classified lists of holdings of library and new additions of books, trade catalogues, and standards and specifications are distributed.

76 Statistical Notes/Data Service

Statistics regarding the production, import and export of machine tools and other products, required for our industry, in India and around the world are collected from different sources as and when they appear, and they are presented in the form of statistical notes.

77 Design-Documentation Service

The Design-Documentation work, involving the analysis, classification and indexing of the various mechanisms and ideas contained in our collaborators' design drawings has been undertaken.

The project was undertaken to achieve the following main objectives:

- 1 To avoid unintended and unnecessary duplication of work by/in designing mechanisms already designed by others. This would help in reducing the cycle time in design;
- 2 To help in preventing the use of uneconomical and complex designs of mechanisms in place of simple mechanisms; and
- 3 Create awareness of new productive mechanisms and ideas.

A lot of attention is. needed in this important work. For this purpose, the documentalist should work as a member in the team undertaking this work,

73 Translation and Reprography

For translation and reprographic work, the Central Technical Information Centre at our Head Office, which is fully equipped is used.

8 CONCLUSION

The success of the planning of documentation services in an industrial enterprise will depend mainly on:

- 1 The technical knowledge and "Professional approach" of the documentaist ;
- 2 Specification of the aims and objectives of documentation services which in turn is based on the aims and objectives of the enterprise;
- 3 A program which directs the resources into action, to realise the objectives;

4 Resources; and

5 Development of proper relationship with all the beneficiaries of the documentation services, so that services can be evaluated and revised to meet the actual needs.

91 APPENDIX 1

Operations, Man hours and cost of labour/material in the preparation of Current Awareness List: V2; No 4.

Sl	Operation	Man hours		Labour/ Material cost
		Profes- sional	Non-Pro- fession-	
1	Scanning and selecting the items and Instructions for typing abstracts	20		80
2	Typing catalogue cards with abstracts (189 entries)		20	40
3	Classifying	20		80
4	Giving feature headings and freezing	4		16
5	Preparation of the Index (228 slips)	6		24
6	Typing stencils (42 nos)		12	24
7	Checking of stencils for correction	5		20
8	Correction of stencils			2
				531

SN	Operation	Man hours		Labour Material cost
		Profes- sional	Non-profes- sional	
9	Printing (cyclostyling)		5	16
10	Cost of stencils, paper and ink			60
11	Collating and stapling			10
12	Markings for SDI			16
13	Despatch			2
			Total	390

APPENDIX 2 : SPECIMEN PAGE FROM CURRENT AWARENESS LIST

TOOLS, JIGS & FIXTURES

Cutting tools

1623 TEPINKICHIEV (V K), Et al.

Overload protection device for small diameter drills,
(Machines & tooling. 43,12;1972;36).

Grinding

1624 Production wheels in the toolroom - 200% more life.
(Mach & tool blue bk. 68,5;May 1973;94-5).

"Talent" of shoo-designed grinding wheels now
provides surprising results in toolroom
applications.

Holding tools

- 1625 Holding workpieces for surface machining.
(Machinery. 122, 3159;6 Jun 1973; 722-3).
The latest work holding equipment to be introduced by Sykes Manufacturing (Simplox) Ltd, Leicester, is for gripping nominally flat components which must be machined all over on one surface at a first operation. An ingenious arrangement of supporting and locating jacks 'traps' the workpiece without the need for any downwards acting clamps of the conventional type. As a result, the workpiece can be machined all over on one surface at one set-up.
- 1626 Inset tool presetting system.
(Machinery. 122, 3159; 6 Jun 1973; 732-4).
The Inset presetting system, developed by P I Design Marketing, is intended for use with standard brazed-tip tools . A range of adaptors is provided to suit shanks of different sizes and sections and the tool/adopter assembly is clasped in the tool post of a machine. The tool is present in the adaptor with the aid of simple equipment, and presetting arrangements have been developed for small round-shank boring tools.

MACHINE ELEMENTSBearing

- 1627 DAVIES (P B) & HOWARTH (R B).
Bearing survey.
(OEM design. 2,6;Jun 1973;60-9).

- 1G28 Bearings for aerospace — and industry.
 (Tooling & prodn. 39,2;May 1973;44-6)_s
 Hew generation tapered hearings run faster
 and cooler; and they are lighter and more
 reliable. Developments in lubrication system
 design get the oil where it's needed, per-
 - mitting more than twice the present speed.

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